Fei Jiao

List of Publications by Year
in descending order

70 papers	9,855 citations	61984 43 h-index	82547 72 g-index
75 all docs	75 docs citations	75 times ranked	8711 citing authors

#	Article	IF	Citations
1	Optimization of the thermoelectric figure ofÂmeritÂin the conducting polymer poly(3,4-ethylenedioxythiophene). Nature Materials, 2011, 10, 429-433.	27.5	1,518
2	Semi-metallic polymers. Nature Materials, 2014, 13, 190-194.	27.5	722
3	Towards polymer-based organic thermoelectric generators. Energy and Environmental Science, 2012, 5, 9345.	30.8	684
4	Organic Thermoelectric Materials and Devices Based on <i>p</i>â€•and <i>n</i>â€•Type Poly(metal) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	21.0	448
5	Thermoelectric materials and applications for energy harvesting power generation. Science and Technology of Advanced Materials, 2018, 19, 836-862.	6.1	413
6	Understanding the Capacitance of PEDOT:PSS. Advanced Functional Materials, 2017, 27, 1700329.	14.9	275
7	Tuning the Thermoelectric Properties of Conducting Polymers in an Electrochemical Transistor. Journal of the American Chemical Society, 2012, 134, 16456-16459.	13.7	269
8	A Waterâ€Gate Organic Fieldâ€Effect Transistor. Advanced Materials, 2010, 22, 2565-2569.	21.0	265
9	Thermoelectric Properties of Solutionâ€Processed nâ€Doped Ladderâ€Type Conducting Polymers. Advanced Materials, 2016, 28, 10764-10771.	21.0	245
10	Interfaces in organic electronics. Nature Reviews Materials, 2019, 4, 627-650.	48.7	237
11	Wearable Thermoelectric Materials and Devices for Selfâ€Powered Electronic Systems. Advanced Materials, 2021, 33, e2102990.	21.0	221
12	Polarons, Bipolarons, And Absorption Spectroscopy of PEDOT. ACS Applied Polymer Materials, 2019, 1, 83-94.	4.4	217
13	Flexible nâ€Type Highâ€Performance Thermoelectric Thin Films of Poly(nickelâ€ethylenetetrathiolate) Prepared by an Electrochemical Method. Advanced Materials, 2016, 28, 3351-3358.	21.0	206
14	Effect of (3â€glycidyloxypropyl)trimethoxysilane (GOPS) on the electrical properties of PEDOT:PSS films. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 814-820.	2.1	190
15	An Organic Mixed Ionâ€"Electron Conductor for Power Electronics. Advanced Science, 2016, 3, 1500305.	11.2	188
16	Unconventional Thermoelectric Materials for Energy Harvesting and Sensing Applications. Chemical Reviews, 2021, 121, 12465-12547.	47.7	186
17	Insulator Polarization Mechanisms in Polyelectrolyteâ€Gated Organic Fieldâ€Effect Transistors. Advanced Functional Materials, 2009, 19, 3334-3341.	14.9	181
18	Ionic Seebeck Effect in Conducting Polymers. Advanced Energy Materials, 2015, 5, 1500044.	19.5	178

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19	Significant Electronic Thermal Transport in the Conducting Polymer Poly(3,4â€ethylenedioxythiophene). Advanced Materials, 2015, 27, 2101-2106.	21.0	176
20	Experimental evidence that short-range intermolecular aggregation is sufficient for efficient charge transport in conjugated polymers. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 10599-10604.	7.1	175
21	Polymer gels with tunable ionic Seebeck coefficient for ultra-sensitive printed thermopiles. Nature Communications, 2019, 10, 1093.	12.8	174
22	Thermoelectric Polymers and their Elastic Aerogels. Advanced Materials, 2016, 28, 4556-4562.	21.0	157
23	Acido-basic control of the thermoelectric properties of poly(3,4-ethylenedioxythiophene)tosylate (PEDOT-Tos) thin films. Journal of Materials Chemistry C, 2015, 3, 10616-10623.	5.5	147
24	Ionic Thermoelectric Figure of Merit for Charging of Supercapacitors. Advanced Electronic Materials, 2017, 3, 1700013.	5.1	146
25	Elastic conducting polymer composites in thermoelectric modules. Nature Communications, 2020, 11, 1424.	12.8	134
26	Thermoelectric Polymer Aerogels for Pressureâ€"Temperature Sensing Applications. Advanced Functional Materials, 2017, 27, 1703549.	14.9	133
27	Ion Electronâ€"Coupled Functionality in Materials and Devices Based on Conjugated Polymers. Advanced Materials, 2019, 31, e1805813.	21.0	118
28	Inkjet-printed flexible organic thin-film thermoelectric devices based on p- and n-type poly(metal) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3 Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130008.	3.4	116
29	A Multiparameter Pressureâ€"Temperatureâ€"Humidity Sensor Based on Mixed Ionicâ€"Electronic Cellulose Aerogels. Advanced Science, 2019, 6, 1802128.	11.2	114
30	Ionic thermoelectric gating organic transistors. Nature Communications, 2017, 8, 14214.	12.8	99
31	Thermoelectric Properties of Polymeric Mixed Conductors. Advanced Functional Materials, 2016, 26, 6288-6296.	14.9	96
32	Poly(3,4â€ethylenedioxythiophene): Chemical Synthesis, Transport Properties, and Thermoelectric Devices. Advanced Electronic Materials, 2019, 5, 1800918.	5.1	93
33	Effect of the Ionic Conductivity on the Performance of Polyelectrolyteâ€Based Supercapacitors. Advanced Functional Materials, 2010, 20, 4344-4350.	14.9	83
34	Ionic thermoelectric paper. Journal of Materials Chemistry A, 2017, 5, 16883-16888.	10.3	79
35	Organicâ€"Inorganic Hybrid Nanomaterials for Electrocatalytic CO₂ Reduction. Small, 2020, 16, e2001847.	10.0	79
36	Celluloseâ€Conducting Polymer Aerogels for Efficient Solar Steam Generation. Advanced Sustainable Systems, 2020, 4, 2000004.	5.3	74

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37	A Freeâ€Standing Highâ€Output Power Density Thermoelectric Device Based on Structureâ€Ordered PEDOT:PSS. Advanced Electronic Materials, 2018, 4, 1700496.	5.1	73
38	Correlating the Seebeck coefficient of thermoelectric polymer thin films to their charge transport mechanism. Organic Electronics, 2018, 52, 335-341.	2.6	73
39	Bulk electronic transport impacts on electron transfer at conducting polymer electrodeâ€“electrolyte interfaces. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11899-11904.	7.1	61
40	Ionic thermoelectric materials and devices. Journal of Energy Chemistry, 2021, 61, 88-103.	12.9	61
41	High Thermoelectric Performance in nâ€Type Perylene Bisimide Induced by the Soret Effect. Advanced Materials, 2020, 32, e2002752.	21.0	53
42	Controlling the Dimensionality of Charge Transport in an Organic Electrochemical Transistor by Capacitive Coupling. Advanced Materials, 2011, 23, 4764-4769.	21.0	52
43	Interface-Located Photothermoelectric Effect of Organic Thermoelectric Materials in Enabling NIR Detection. ACS Applied Materials & Interfaces, 2015, 7, 8968-8973.	8.0	45
44	Poly(3,4-ethylenedioxythiophene)-tosylate (PEDOT-Tos) electrodes in thermogalvanic cells. Journal of Materials Chemistry A, 2017, 5, 19619-19625.	10.3	44
45	Asymmetric Aqueous Supercapacitor Based on p- and n-Type Conducting Polymers. ACS Applied Energy Materials, 2019, 2, 5350-5355.	5.1	44
46	Effects of structural order in the pristine state on the thermoelectric power-factor of doped PBTTT films. Synthetic Metals, 2012, 162, 788-793.	3.9	42
47	Nanofibrillated Celluloseâ€Based Electrolyte and Electrode for Paperâ€Based Supercapacitors. Advanced Sustainable Systems, 2018, 2, 1700121.	5.3	38
48	A novel cuprous ethylenetetrathiolate coordination polymer: Structure characterization, thermoelectric property optimization and a bulk thermogenerator demonstration. Synthetic Metals, 2014, 193, 1-7.	3.9	32
49	Molecular Oxygen Activation at a Conducting Polymer: Electrochemical Oxygen Reduction Reaction at PEDOT Revisited, a Theoretical Study. Journal of Physical Chemistry C, 2020, 124, 13263-13272.	3.1	32
50	The More, the Betterâ€“Recent Advances in Construction of 2D Multiâ€Heterostructures. Advanced Functional Materials, 2021, 31, 2102049.	14.9	27
51	A Biomimetic Evolvable Organic Electrochemical Transistor. Advanced Electronic Materials, 2021, 7, 2001126.	5.1	26
52	Understanding the Impact of Film Disorder and Local Surface Potential in Ultraviolet Photoelectron Spectroscopy of PEDOT. Macromolecular Rapid Communications, 2018, 39, 1700533.	3.9	22
53	Unraveling vertical inhomogeneity in vapour phase polymerized PEDOT:Tos films. Journal of Materials Chemistry A, 2020, 8, 18726-18734.	10.3	22
54	Synthesis of Wurtzite Cu₂ZnGeSe₄ Nanocrystals and their Thermoelectric Properties. Chemistry - an Asian Journal, 2013, 8, 2383-2387.	3.3	21

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55	Ionâ€Selective Electrocatalysis on Conducting Polymer Electrodes: Improving the Performance of Redox Flow Batteries. Advanced Functional Materials, 2020, 30, 2007009.	14.9	21
56	Ground-state charge transfer for NIR absorption with donor/acceptor molecules: interactions mediated via energetics and orbital symmetries. Journal of Materials Chemistry C, 2017, 5, 275-281.	5.5	20
57	Insulating polymers for flexible thermoelectric composites: A multi-perspective review. Composites Communications, 2021, 28, 100914.	6.3	20
58	Optimization of the thermoelectric properties of poly[Cux(Cu-ethylenetetrathiolate)]. Synthetic Metals, 2014, 188, 111-115.	3.9	18
59	Thermoelectrics: Carbon nanotubes get high. Nature Energy, 2016, 1, .	39.5	18
60	Conducting Polymer Electrocatalysts for Protonâ€Coupled Electron Transfer Reactions: Toward Organic Fuel Cells with Forest Fuels. Advanced Sustainable Systems, 2018, 2, 1800021.	5.3	18
61	Twinning Lignosulfonate with a Conducting Polymer via Counterâ€Ion Exchange for Largeâ€Scale Electrical Storage. Advanced Sustainable Systems, 2019, 3, 1900039.	5.3	17
62	Two-dimensional porphyrin sheet as an electric and optical sensor material for pH detection: A DFT study. Computational Materials Science, 2020, 174, 109485.	3.0	17
63	Polymer-Assisted Space-Confined Strategy for the Foot-Scale Synthesis of Flexible Metalâ€"Organic Framework-Based Composite Films. Journal of the American Chemical Society, 2021, 143, 17526-17534.	13.7	17
64	Conductingâ€Polymer Bolometers for Lowâ€Cost IRâ€Detection Systems. Advanced Electronic Materials, 2019, 5, 1800975.	5.1	16
65	Effect of Sulfonation Level on Lignin/Carbon Composite Electrodes for Large-Scale Organic Batteries. ACS Sustainable Chemistry and Engineering, 2020, 8, 17933-17944.	6.7	15
66	An easily accessible carbon material derived from carbonization of polyacrylonitrile ultrathin films: ambipolar transport properties and application in a CMOS-like inverter. Chemical Communications, 2014, 50, 2374.	4.1	13
67	Solar Heatâ€Enhanced Energy Conversion in Devices Based on Photosynthetic Membranes and PEDOT:PSSâ€Nanocellulose Electrodes. Advanced Sustainable Systems, 2020, 4, 1900100.	5.3	11
68	Room temperature synthesis of transition metal silicide-conducting polymer micro-composites for thermoelectric applications. Synthetic Metals, 2017, 225, 55-63.	3.9	9
69	When graphene meets white graphene â€" recent advances in the construction of graphene and <i>h</i>-BN heterostructures. Nanoscale, 2021, 13, 13174-13194.	5.6	9
70	Continuous orientated growth of scaled single-crystal 2D monolayer films. Nanoscale Advances, 2021, 3, 6545-6567.	4.6	3